

REMARKS

Claims 1-21 and 23-28 are pending. Claims 1, 11, 21, 23, 27 and 28 have been amended. These amendments find support in at least paragraphs [0038] and [0039] of the specification, as well as in the accompanying figures. No new matter is added by these amendments.

Claims 1-21 and 23-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by the non-patent literature titled “ARIES: A Transaction Recovery Method Supporting Fine-Granularity Locking and Partial Rollbacks Using Write-Ahead Logging,” by C. Mohan et al., ACM Transactions on Database Systems, vol. 17, no. 1, March 1992, pages 94-162 (hereinafter referred to as “Mohan”). Reconsideration is respectfully requested.

The undersigned wishes to thank Examiner Farhan for conducting a telephonic interview with the undersigned on Wednesday, October 14, 2009. During the interview, the undersigned discussed the claimed methods and system, particularly the mechanism described in paragraphs [0038] and [0039] of the specification for enabling a “durable read” to be performed in a system that permits “lazy commits” of transactions, *i.e.*, transactions in which a change to a data page is recorded in a transaction log buffer in memory, but where the transaction log buffer is not immediately flushed to a persistent data store. As described in paragraphs [0038] and [0039], when such a “lazy commit” is performed, the changed data page in the memory is marked to indicate that the transaction log buffer has yet to be flushed to the persistent data store. Later, when performing a subsequent transaction in which a “durable read” of at least a portion of the changed data page is requested, the changed data page is checked to determine whether it has previously been so marked (*i.e.*, indicating that the transaction log buffer containing data about the change made to the data page has not yet been flushed to persistent storage). If it is determined that the changed data page is so marked, then before the changed data page is permitted to be read, the transaction log buffer is flushed to the persistent data store, thus making the changes to the page “durable” and ensuring data consistency in the event of a system interruption. Once the transaction log has been flushed, the data of the changed data page can be read to complete the “durable read.”

Each of the independent claims 1, 11 and 21 has been amended to more clearly reflect this mechanism. For example, claim 1 has been amended to read:

making a change to a data page in the memory as a result of a transaction performed by the computer system;

storing data associated with the change in a transaction log buffer in the memory of the computer system, *but not immediately* flushing the transaction log buffer to a persistent data store;

marking the changed data page *in the memory* to indicate that the transaction log buffer *has yet to be* flushed to the persistent data store;

processing a subsequent transaction in which a *durable read* of at least a portion of the changed data page is to be performed, *and before reading the changed data page*:

determining whether the changed data page *is so marked*; and

if the changed data page is so marked, *flushing* the transaction log buffer to the persistent data store *prior to the changed data page being read*.

(emphasis added). Claims 11 and 21 have been similarly amended.

As discussed during the October 14 interview, the applicants respectfully submit that the Mohan reference does not teach or suggest the features now more clearly recited in independent claims 1, 11 and 21. Reconsideration of the Section 102 rejection is respectfully requested in light of these amendments.

CONCLUSION

For all the foregoing reasons, the applicants respectfully submit that the present application is now in condition for allowance.

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